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ABSTRACT

This volume is a guide for assessing children with dual sensory or severe impairments between the ages of 6 and 15. It presents a functional-ecological assessment process that is individually determined, contextually based, and leads directly to intervention. It begins by discussing the benefits of this model over standardized assessment procedures and describes the 4-step assessment process: determine student and family goals, conduct an ecological analysis of critical activities, conduct a discrepancy analysis of critical activities, and develop a clear profile of the student. The manual then describes how to translate assessment results into programming decisions through the following steps: (1) target critical skills for instruction; (2) decide whether to teach the skill or adapt the steps; (3) specify exactly how skills will be learned; (4) decide where and when to teach; (5) and analyze effectiveness of intervention. The manual then discusses steps for guiding intervention processes. Appendices include suggested readings, suggested assessment instruments, a glossary, sample parent/family survey intervention forms, functional-ecological assessment forms and samples, and an instructional task analysis form. (Contains 40 references.) (CR)

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Assessing the School-Age Student With Dual Sensory & Multiple Impairments

(Ages 6-15)

Assessment Guidelines Volume 2

June E. Downing, Ph.D.

Cal State University, Northridge

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Preface

This manual represents an effort to clarify the process of assessment for students who are school age and have dual sensory and intellectual impairments. Since standardized assessment tools often fail to provide educators and family members with practical information to support the learning of the child with dual sensory impairments, especially when other disabilities are also present, an alternative is needed. The purpose of this manual is to present an assessment process that is individually determined, contextually based, and leads directly to intervention. The assessment process does not require extensive training of any one individual, but rather the collaborative efforts of those involved in the education of a child. Though this manual specifically targets school age children with dual sensory and intellectual impairments, the process described is applicable to a wide range of school age children having many different abilities and disabilities.

Introduction

A New Way to View Assessment

To date, most procedures designed to assess the abilities of students with disabilities have focused on the use of standardized tools. These procedures, however, have received considerable criticism for failing to accommodate the student's primary learning mode and physical inability to respond to certain test items (Biklen, 1985; Neill & Medina, 1989). When such procedures have been used to assess students with severe disabilities (especially students with dual sensory impairments), students have generally received very low IQ and developmental-age scores. Such scores fail to take into account the student's need to meet social and environmental expectations, personal motivation, family preference, and individual preference for particular activities. Furthermore, standardized measures have done little to help educators determine what to teach. If teachers use standardized tests (or out-of-context, criterion-referenced tests), the danger of teaching to the test is obvious. Students may get stuck trying to pass test items that have little importance to their life and life plans.

To address these issues, the functional-ecological approach to assessment begins with family input, and then assesses the student in a contextual manner that leads to meaningful intervention. The intent of this process is to individualize the assessment by examining the student's strengths and needs within relevant activities and environments. The vision of desired outcomes for each student serves as a guide for the entire process.

Sharing the Responsibility

As with any new venture, the initial time commitment required for the functional-ecological assessment may be substantial. Team members will need to perform a variety of tasks, including:

- interviewing parents to determine student needs and goals,
- analyzing critical activities where they most naturally occur,
- determining the most appropriate nondisabled person inventory (the list of steps taken to perform a task by a person without a disability),
- determining the natural cues present for each step of an activity,
- assessing the student's performance of each step,
- determining the reason for any discrepancy, and
- making a preliminary decision to adapt the situation or teach the skill.

Placing this much responsibility on any one person is unrealistic, especially when other students require equal attention. Thus, the functional-ecological approach must be a team approach in which all individuals directly interested in the student's development contribute to the assessment process. In this way, assessment does not fall on the shoulders of one person, but is shared by all who can assist in the process.

When conducting an assessment, team members must decide who is in the best position to obtain the needed information; for example, who is in the best position to interview parents, to assess a particular activity, and to bring the findings back to the group (Downing & Bailey, 1990). Teachers, teaching assistants, school psychologists, occupational therapists, and vision specialists, to name a few, can all assess the student within various contexts.

The team must also decide who is in the best position to serve as team leader. This person will guide the assessment process and assume responsibility for compiling assessment information and sharing this information with other team members. This person can be any member of the team, but is most often a special educator, school psychologist, or parent.

Once an initial assessment of critical activities has been obtained, the findings lead directly to program intervention. Later, as additional activities are assessed (based on skill acquisition and changing needs/desires), a portfolio of student performance within these activities adds to the data base. This assessment is not a yearly or three-year activity. It is an ongoing process that continuously adds to the information available on a student's performance. Thus, sharing responsibility and working as a team is the most effective means for conducting a meaningful assessment.

Assessment Guidelines

Step 1: Determine Student and Family Goals

The first critical step in a functional-ecological assessment is to determine the student's current needs and future goals. This is done by conducting a highly individualized interview with the student and family. The interview should be conducted in a place where the student and family feel most comfortable; for example, their home, a restaurant, the school, or perhaps the public library.

To guide this interview, teams members may use one of several parent interview forms found in Appendix A. However, team members should not feel constrained to follow these forms precisely. They should remember that the primary goal of the interview is to give students and family members a strong

voice in the assessment process, and that in some cases, constantly filling out a form may be intimidating or prevent the free flow of information. Thus, when selecting a parent interview form, team members should consider which format will allow the interview to be conducted in the least intrusive manner and provide the greatest support to the family.

Since many students with dual sensory impairments may be unable to fully express their current needs or future hopes, family members play an extremely important role in the interview process. Throughout the interview, team members should encourage family members to identify both the student's current needs and their future aspirations for the student (Giangreco, Cloninger & Iverson, 1993; O'Brien, 1987). In addition, team members should encourage family members to identify specific activities and environments in which the student needs to and/or would like to perform more competently. By including parent and other family members as core members of the team, family members and professionals alike gain a clearer picture of desired outcomes for the child and the most relevant ways to reach those outcomes (Giangreco, Eddman, Dennis & Cloninger, 1995).

For example, family members may express the desire for their child to have friends and learn how to interact with others their age. Since this is a rather broad goal, it is important to relate it to everyday occurrences. Most children from ages 5-18 are in school, therefore, activities that need to be assessed will probably occur at school. Since the majority of students in any given school do not have disabilities, analyzing the typical classes and activities where these students are becomes imperative.

Working with families

Some families have definite goals and expectations for the student and know exactly what activities and environments should be assessed. Such specific information provides clear direction for the assessment team. Other families, however, may be less certain of the student's needs. Their hesitancy may stem from a number of unique variables, including deference to professionals, lack of knowledge about present and future options, cultural values, and negative past experiences with professionals when trying to express goals and aspirations. Whatever the reason, family members who are reluctant to share this type of information should still be encouraged to do so.

To encourage family members to share such information, professionals need to actively listen to parents and other family members, and to follow their lead, no matter how slight, in order to avoid directing the interview process. Team members can provide ideas, relay experiences of others, and make parents aware of what other children do who are the same age, though nondisabled. In addition, they can make sure that parents are aware of all environments that a typical, same-age student would normally access (e.g., home, school, work, community, and leisure activities). Perhaps the most important thing professionals can do, however, is to help family members dream for their child. They can encourage parents to look beyond the impairments and labels imposed by others and see their child, unfettered by the limitations of others. Establishing a personal relationship with family members prior to any attempt to obtain

assessment information is of critical importance, especially for families who represent different cultural values (Harry, Grenot-Scheyer, Smith-Lewis, Park, Xin, & Schwartz, 1995)

Step 2: Conduct an Ecological Analysis of Critical Activities

The next step in the assessment process is to conduct an ecological analysis of those activities identified as most critical by the family, student, and other team members. To do this, team members first decide which activities require immediate attention. Then, using an Ecological Assessment Form (see Appendix B for a sample), they determine (a) the exact steps needed to complete each activity by a person who is the same age as the student but nondisabled, and (b) the natural cues in the environment which help an individual complete the activity.

As time permits, additional activities considered important by the family, individual, and team are assessed. These activities are included either as an informal part of a student's program (not part of the IEP) or are added to the student's formal program when the most critical activities are mastered or are no longer determined to be critical.

The ecological analysis is completed for each activity in the actual location where the activity occurs. Individual team members share this responsibility according to their availability. The analysis is important because it determines the physical layout of the activity, the environmental demands, and the social expectations of other people involved. In addition, it provides the team with valuable information related to the social, sensory, and physical stimuli that can facilitate or hinder the student's acquisition of required skills. Finally, by identifying the natural cues in the environment, the analysis identifies potential barriers that may prevent a person who has severe multiple impairments from completing a task. For example, within a grocery store, the natural cues that serve to guide an individual through a shopping trip include the stack of empty carts upon entry of the store, the array of numbered aisles, the various food items upon the shelves, and the checkout counters. These visual cues lead to completion of a shopping activity without a lot of assistance. Without these cues, however, people would inevitably have to stop and request assistance. Without vision to see these cues, personal assistance would also be necessary.

As stated, each critical activity must be analyzed according to the steps performed by a same-age peer who is nondisabled. To determine these steps, team members simply observe the peer performing the activity and record the steps in the first column of the Ecological Assessment Form (Figure 1). This procedure is commonly called the "nondisabled person inventory" and is used to identify the most appropriate expectations for the student being assessed. It is of critical importance to remember that the sequence in which the nondisabled peer performs a task does not represent an absolute and inflexible order. Individual preference should determine the order of many steps. Thus, students should be given credit for any step performed (regardless of order) if it leads to successful completion of the activity.

Once the steps to an activity are identified, the team records all cues that naturally occur in the environment to determine if these cues are accessible to the student. (Again, this information is recorded on the Ecological Assessment Form, this time in the column labeled "Natural Cues.") Without this information, intervention strategies may target the student responding to the teacher (instructional cue), versus the natural cues that allow for greater independence. For example, the bell ringing at noon (a natural cue) signals time to line up for lunch. However, the third grader with a dual sensory loss may only respond to the instructional cue of the aide telling her that it's time for lunch. This student may be given credit for lining up with her class, even though she did not do so given the same cue available for her peers (the bell).

Figure 1

Nondisabled Person Inventory
of a 7-Year Old Student Going to the Library

ECOLOGICAL ASSESSMENT FORM

Domain: School

Activity: To Library to Check Out Book

Nondisabled Person Inventory	Natural Cues	Student Performance	Discrepancy Analysis	Adaptations/ Cues to Teach
1. Go to library in line with class	Teacher's direction: peers in line			
2. Look for Book	Books on shelves			
3. Choose book(s)	Internal preference; choices available			
4. Take book to table to read	Knowledge of routine; presence of chairs & tables; others sitting			
5. Return book to shelf or check out book	Finished with book; teacher's direction to leave			
6. Line up to return to class	Teacher's direction; peers in line			

As noted in Figure 1, natural cues guide the behavior of the nondisabled student. Team members need to realize, however, that some natural cues are internal (e.g., hunger is an internal cue that prompts a person to start looking for food) and more difficult to ascertain than external cues (e.g., knowledge of a specific routine is an internal cue that typically prompts the next step). Thus, during this phase of assessment, team members may need to make an educated guess as to what internal cues exist.

Step 3: Conduct a Discrepancy Analysis of Critical Activities

The next step in the assessment process is to assess the student's ability to perform each activity. To do this, the student is presented with each activity at the actual site and assessed according to ability to perform all the steps. Students are not held to any rigid sequential structure imposed by the nondisabled person inventory, but are given credit for whatever steps they can perform. Student performance is recorded on the Ecological Assessment Form (Figure 2), with a "+" indicating independent performance and a "-" indicating nonindependent performance. Again, assessment of individual activities is conducted by various team members according to their skills and availability. Results are shared with all team members to ensure consistency in intervention procedures.

Figure 2

Discrepancy Analysis of a 7-Year Old Student Going to the Library

Ecological Assessment Form

Domain: School

Activity: To Library to Check Out Book

Nondisabled Person Inventory	Natural Cues	Student Performance	Discrepancy Analysis	Adaptations/ Cues to Teach
1. Go to library in line with class	Teacher's direction; peers in line	--	Hard time transitioning; doesn't hear	Teacher shows pictorial schedule & pairs with peer
2. Look for Book	Books on shelves	--	Runs around library over-stimulated by environment	Teacher prevents running; has peer direct student to section of books
3. Choose book(s)	Internal preference; choices available	+		
4. Take book to table to read	Knowledge of routine; presence of chairs & tables; others sitting	--	Likes to sit on floor; sees no reason to do this	Peer cues student: takes book & points to table
5. Return book to shelf or check out book	Finished with book; teacher's direction to leave	--	Sees no reason to do this; can't hear directions	Peer models behavior; places book in hand & points to shelves
6. Line up to return to class	Teacher's direction; peers in line	--	Prefers to run; sees no reason to do this	Peer takes responsibility for helping student stay in line

If a student does not perform a step in an activity, the assessor must determine why the skill is not performed. This reason is also recorded on the Ecological Assessment Form, in the column labeled "Discrepancy Analysis." At times, the reason clearly relates to a student's physical inability to detect the natural cues (e.g., a student can't see or hear so does not respond to the cashier's request for money). At other times, the reason is less obvious (e.g., the student does not rub his hands together while washing them, even though there is no physical impairment), and the team must simply estimate why the skill is not demonstrated. Analyzing why a student does not perform a step is critical to the assessment process, for based on the reason given, the team must decide whether to teach the skill or adapt the step. Suggestions for adapting or teaching the step are recorded in the final column of the Ecological Assessment Form.

If the discrepancy involves a sensory or physical impairment that cannot be corrected, the most efficient approach may be to adapt the step. For example, the student who is deaf-blind may not respond to the teacher's request to line up because he lacks auditory skills and cannot see the model presented by his peers. In this case, the reason for the discrepancy clearly indicates that an adaptation will be necessary (i.e., a peer will tactually alert the student to the teacher's request and provide sighted guide to the door). When the student does not perform the step but clearly has the physical capabilities, the most efficient approach may be to teach the desired skill. For more information on how to decide whether to adapt the step or teach the skill, see pp. 15-19.

If done carefully and comprehensively, discrepancy analyses provide the intervention team with considerable information regarding learning styles, physical and sensory capabilities, and the need for adaptations. Figure 2 provides an example of a complete analysis done for the 7-year-old student in the school library.

From this analysis it is apparent that the auditory information provided by the teacher is ineffective with this student, who appears to respond more successfully to visual cues (pictures, pointing). The use of peers represents a normalized way of compensating for the missed verbal direction from the teacher. The reason this activity was assessed for this student is based on the parents' desire to have their child make friends and be a part of his school and community.

Sampling the data

Although careful analysis of an activity provides useful information about that particular activity, it is insufficient to provide the comprehensive data needed to teach across activities and environments. For this reason, one should remember that a functional-ecological approach to assessment is an ongoing procedure in which useful information is collected throughout a student's school career. Samples of different activities will add to the data base and provide examples of proficiency levels across activities. The more activities that are analyzed and compared to a nondisabled person's inventory of skills, the more the team will be able to identify the individual's strengths and limitations. Such analyses also will clarify the environments and activities in which the student feels most comfortable and competent. Perhaps the number of activities initially assessed should reflect the number of IEP goals or objectives for that academic year. Since several skills can be

targeted within one activity, it may be best to limit the activities assessed to six or eight, with a corresponding number of IEP objectives. Unlike standardized assessment tools that assume an absolute level of competence across environments, the ecological and functional assessment procedure highlights the contextual nature of behavior (Downing, 1989).

Step 4: Develop a Clear Profile of the Student

Once the student's performance on critical activities has been obtained and at least partially analyzed through the discrepancy analysis, the team must work together to develop a clear, narrative profile of the student. This profile should paint a broad picture of the student, pinpointing strengths and limitations that run across skill areas (see Figure 3). Within this profile, basic skills such as communication, purposeful manipulation of objects, travel, decision making, attention to task, social interaction, and use of vision can be identified as strengths, limitations, or varied depending on the expectations of the environment.

Some students with deaf-blindness demonstrate considerable strength in visual attention across activities and environments. Others have difficulty in this area as demonstrated by their failure to respond to visual cues. Students with deaf-blindness typically have considerable difficulty effectively communicating their thoughts, needs, and desires (Downing, 1993; Siegel-Causey & Guess, 1989). This problem may manifest itself in different ways across the various environments assessed for the student.

A careful analysis of the assessment data by all team members should help identify the student's strongest learning mode (e.g., visual, auditory, tactile) and therefore, provide considerable direction for intervention. Team collaboration is critical during this step so that strengths identified by an assessor in one activity do not go unrecognized by other team members. Since the physical, social, and cognitive demands on a student vary depending on the activity assessed, a wide discrepancy in performance levels may exist from one activity to another. For example, Troy, age 14, feeds himself finger foods during lunch in the cafeteria, responding well to peer cues. However, during P.E., which is held outside in bright sunlight, Troy does not attend to the game and responds slowly, if at all, to peer cues to press a switch that activates a prerecorded message encouraging his teammates. Interpreting the findings within a contextual format prevents team members from making unfounded generalizations regarding a student's performance and keeps the focus on the impact of the environment.

Figure 3
Compilation of Assessment Findings

Student Heather **Date:** 11-5-92

Age: 8 **Assessor(s)** Jane Heny, 2nd grade teacher.
Stephanie Brown, Special educator.
Teri Moore, SLP. Wendy Simmons, P.T.
Todd Jones, Vision Specialist

Activities and Environments Assessed*

Independent seat work in 2nd grade. Recess on playground. Computer time in computer lab.
Lunch in cafeteria. Math centers in 2nd grade. going to the bathroom in girls restroom.

* See Attached Discrepancy Analysis

General Findings

Communication: *Heather uses facial expressions, gestures, vocalizations, object manipulations, pictures and five signs (eat, want, help, milk & cracker) to express herself. She does not initiate interactions with peers and rarely responds to them. She follows 1-2 step directions given signed, gestured & pictorial information. She uses communication skills to request, reject, draw attention & make comments.*

Motoric (Movement in Space & Manipulation of Objects): *Heather uses a wheelchair for long distance & a walker for short distance. She is very slow with her walker and has problems with balance. She has difficulty isolating her index finger for computer work and needs a built-up spoon for eating. She is developing a semi-pincer grasp.*

Sensory (Visual, Hearing, Tactile): *Heather sees colored pictures, objects & signs presented to her within a 2-3" range. She responds more often to information presented on her right side. She appears sensitive to very bright lights/glare. She explores objects with her hands and mouth, occasionally applying more pressure with hands than needed. She doesn't respond to auditory information.*

Cognitive(Decision Making, Problem Solving, Attention to Task, Associations, Etc): *Heather makes choices from a field of two (preferred to non-preferred). She matches like objects/pictures of interest (Uno cards, family photos). She occasionally seeks assistance when needed. She attends to preferred activities (looking at pictures) for 10 minutes.*

Academics (Reading, Writing, Math): *Heather uses a signature stamp to "sign" her name. She recognizes her name from a field of three very different names. She is beginning to recognize whole words in her schedule of school & home (T.V., P.E., eat lunch). She is beginning to get the concept of 1 and can match numbers 0 - 5.*

Personal Care: *Heather is beginning to indicate the need to go to the bathroom after she has had an accident. She pulls down her pants when supported to stand, sits on the toilet for a few minutes and flushes the toilet. She prefers to play in the water vs. wash her hands. She feeds herself with an adapted spoon and uses two hands to drink.*

Social:*Heather has limited interaction skills with peers. She screams, hits, and scratches when she is frustrated or angry. She prefers solitary activities to group interactions. She responds well to praise and earned reinforcers from her teachers.*

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Translating Assessment Results into Programming Decisions

Unlike standardized assessment findings, the functional-ecological assessment leads directly to intervention. Depending on how thoroughly the discrepancy analyses have been conducted and how accurately the assessors have identified natural cues and ideas for adapting or teaching strategies, partial lesson plans may exist by this stage. However, since some students have many skills that need attention, the team must first decide where to focus initial intervention efforts.

Step 1: Target Critical Skills for Instruction

Every activity is composed of a number of unique steps that lead from beginning to end. Some students with dual sensory and multiple impairments will master all the steps of an activity; others will master some of them. Thus, the team must now decide which steps to initially teach a student.

Many factors must be considered when targeting skills for instruction. First and foremost, student and family preference must be given strong consideration. In addition, a student's sensory skills (ability to take in information visually or auditorially), physical skills (both fine and gross motor), the frequency of occurrence of a given skill, a student's rate of learning, and years remaining in school should be considered. Finally, the possibility of attaining a skill given student limitations must be considered.

An example may clarify this concept. Michelle is a fourth grade student who is visually and hearing impaired. In addition, she has moderate mental retardation and quadriplegia athetoid cerebral palsy. While writing a letter in language arts, Michelle has extreme difficulty handling the computer disks, deciding what to say, and typing the letter. The team must decide not only which of these skills are important for Michelle to attain, but which ones she is able to attain. While Michelle is unable to perform any of the steps in this activity (see Figure 4), the team feels that there are steps she can master. For example, although Michelle will not be expected to type her own letter, she will be expected to choose a partner, turn on and off the computer via an adapted switch, help to push in the disk, respond to her peer's inquiries, choose different borders for her stationary, and look at the screen. From these many skills that allow her to participate in this activity, the team must decide which steps to target initially and which steps to target later. Depending on Michelle's rate of learning and other needs, one or more steps may be targeted. Skills that appear in several meaningful activities may be the deciding factor.

From this analysis, it is clear that Michelle does not correctly perform any of the steps needed to be successful in this activity. Although Michelle may never be expected to be independent in this activity, the activity contains a number of important skills that will be useful to her on a long-term basis. These skills include socially responding to her peers, communicating her choice (of peer helper, stationery border), demonstrating control over her environment (switch activation), and in general, attending to the task.

Step 2: Decide Whether to Teach the Skill or Adapt the Steps: A Team Decision

As the team assesses the student performing a meaningful activity, notes are made next to the discrepancy analysis that can help the team decide whether to teach a discrepant step or adapt it to the student's needs. The team now makes this decision, based specifically on the contextual assessment that was done. This decision—to teach or adapt—is repeated many times during the intervention process.

The discrepancy analysis provides the team with an educated guess as to why a student is not performing a particular step of an activity. For some students who are dual sensory impaired, the reason for the discrepancy may be related directly to the loss of either visual or auditory input.

Figure 4

Analysis of a Letter-Writing Activity for a fourth Grader with DSI

Nondisabled Person Inventory	Natural Cues	Student Performance	Adaptations/ Cues to Teach
1. Goes to computer	Hears teacher's directions	-----	Follows pictorial schedule; chooses peer to assist her
2. Turns on computer	Hears teacher's directions & knows routine	-----	Adapted switch & peer prompts
3. Waits for computer to boot up program	Knows routine	-----	Peer cues student not to touch keyboard
4. Puts in disk	Knows routine & sees slot	-----	Highlight slot with reflective tape and peer points/directs
5. Waits for program directions	Knows routine; blank screen	-----	Peer cues student not to touch key board
6. Selects border, print type, size & color	Options provided on screen, print directions	-----	Peer offers choices & waits, models if no respo se
7. Writes letter	Blank screen, knows what to say, has something to say	-----	Peer writes letter & prompts student to hit occasional letters (letter matching)
8. Saves letter	Knows routine	-----	Peer saves letter
9. Prints letter	Letter saved; wants to see it	-----	Peer prints letter
10. Removes disk	Time on computer over; Knows routine	-----	Peer hits button to eject disk; points to disk for student to remove
11. Turns off computer	Time to leave; hears teacher's directions	-----	Peer points to adapted switch.

For example, during recess Shella neither scans the playground nor goes toward any equipment because she has a severe visual and auditory impairment. She can neither see the available options nor hear other children playing on them. Thus, the team decides to adapt this particular step for Shella. A peer will serve as sighted guide to the piece of equipment Shella chooses via the use of representational objects or parts of objects (Rowland & Schweigert, 1989).

Discrepancies that exist for students in other situations may not relate to a sensory impairment, but may reflect the individual's lack of knowledge concerning what is expected. For example, Rod is dual sensory impaired and does not pull up his pants after he goes to the bathroom. Since Rod is physically capable of doing this, the assessor estimates that Rod either (a) lacks the motivation to perform the skill, (b) lacks awareness that it needs to be done, or (c) has learned that someone will do it for him (a phenomenon called learned helplessness). Thus, since there is no reason to adapt the skill, the team decides to teach the skill via backward chaining strategies (Snell & Zirpoli, 1987).

Adapting the steps

Adaptations may be needed when a student lacks sensory skills, physical ability (fine or gross), or cognitive ability to understand the skill requirements. Adaptations can involve:

- personal support (e.g., an interpreter, a sighted guide, a peer buddy),
- physical support (e.g., prone stander, travel chair),
- an augmentative device (e.g., a switch to turn on an appliance, extended lever to crush cans for recycling), or
- an alternative communication system (e.g., a textured system to make choices, a pictorial ordering device to use at fast food restaurants).

Adaptations should be highly individualized and contingent on the situation. Determining the most effective adaptations for an individual is part of the functional-ecological assessment and follows a team decision that a skill cannot be taught without some kind of modification. Adaptations should always ease a student's learning rate or increase the level of independent participation. They should neither make the activity more difficult to perform nor draw negative attention to the student.

Teaching the skill

When a student displays a discrepant step, but the team believes that the student can learn the skill, the decision must focus on how to teach the skill. This decision is guided by initial information obtained from the assessment process; that is, the reason the discrepant behavior occurs (lack of vision, hearing, previous experience) and the suggestions for intervention. Thus, the more thorough the analysis of why the discrepancy occurs and the more complete the suggestions for intervention, the easier it becomes to develop the initial intervention plan (lesson plan).

For students with dual sensory impairments, the reason for the discrepancy often suggests that a different instructional approach is needed. Although the exact intervention will depend on the requirements of the activity and the abilities of the student, a multimodal approach to teaching is frequently recommended. For example, if a discrepant step during a library activity reveals that a student lacks both vision and reading knowledge, an alternative strategy might involve reading to the student or having the student listen to a story on tape (using the auditory mode). If a student cannot see or hear, then the tactile mode may be used. For example, if a discrepant step involves greeting and responding to a peer who says hello, and the reason for the discrepant behavior is that the student cannot see or hear, then the intervention may call for teaching a greeting that uses touch.

Besides using a multimodal approach, teachers should assume a positive, systematic, and consistent approach to intervention. Again, if properly completed, the functional-ecological assessment provides this structure by developing a mini-lesson plan and data sheet. (Intervention strategies identified during the assessment process can always be refined later.) Finally, the least intrusive, most positive, and effective strategies are those that plan for the fading of the intervention, and generalization to other environments.

For students with very complex needs and a limited behavioral repertoire, the discrepant steps may need to be broken down into even smaller steps than those identified on the nondisabled peer inventory. To do this, team members conduct a highly individualized task analysis that allows the teacher to see exactly where the student is having difficulty (see Figure 5). In addition, such an analysis provides a more sensitive tool to record data and measure progress. (For a blank copy of the task analysis form used in Figure 5, see Appendix C.) Teaching staff should remember that some students will be unable to master all of the steps in a given activity. Intervention, however, can target those steps that the student can master in part or full.

Step 3: Specify Exactly How Skills Will Be Learned

Once skills are targeted for instruction, the Individualized Educational Plan (IEP) is developed, spelling out exactly how a student will learn each skill. These plans are written in specific, highly individualized objectives (see examples below).

Examples of IEP Objectives		
6-year-old student	**10-year-old student**	**15-year old student**
For story time, Annie will follow the signed direction to join the class, sit down, and look at the pictures presented by the teacher for 9 of 10 story times.	During science class, Albert will respond to touch cues from peers to share items placed in his hands for at least 10 minutes per period for 8 of 10 science periods.	During home economics, Shannon will follow a pictorial recipe to prepare at least 1 simple snack for 5 home economic periods.

Quality IEP objectives have several components that clarify what skills the student will learn and to what mastery level. These components include:

- the *activity* in which instruction will occur (e.g., listening to a story, performing a science experiment, swimming at the YMCA),
- the *skill or skills* the student is to learn within the activity (e.g., responding to questions about the story, responding to peers during a science experiment, and paying to go swimming at the Y),
- the *required adaptations* necessary for the student to perform as desired (e.g., an augmentative communication device related to the story and an American Sign Language interpreter, a prone stander for positioning in science, and sighted guide for the trip to the Y), and
- an appropriate and meaningful *criterion* to measure student attainment of the objective (e.g., responds to 3 of 4 questions for 5 stories, lifts head and reaches out hand to peers 4 of 5 opportunities for 10 science classes and hands the attendant the appropriate amount of money for 9 of 10 consecutive swimming trips). The criterion must be easily measurable and make sense given the desired skill. The criterion may have different components within one objective, such as frequency (the number of times the skill is to be demonstrated), accuracy (the percentage correct), or duration (the length of time the skill needed to be demonstrated). The team must decide what is the most meaningful component(s) of the criterion that will most accurately measure the targeted skills.

Although team members may tend to identify many objectives for a student, a student may be more successful if only a few of the most critical objectives are identified at once. Not only does this facilitate data collection and accountability, but it allows the team and the student to focus learning efforts on the most important skills. As the student masters these objectives, additional objectives may be added to the student's IEP.

Figure 5

Instructional Task Analysis

Student: Todd* Domain: School

Activity: Recycling unit in 6th grade science

Objective: When Todd's hands are placed on items to be sorted and he is given a tactual model on what to do, Todd will tactually explore the item then hold multiple items and sort these items into appropriate place with 80% accuracy for 10 consecutive opportunities. **

Step from nondisabled peer inventory: #2 (put items in recycling bin)

Skill Sequence	Dates 9/20					Teach or Adapt
a) Places hands on 1-2 items						Move items close to Todd; prompt at elbows to explore
b) Moves hands across item						Move items under hands; Touch hands to explore
c) Picks up item						Manipulate an item into Todd's hands
d) Transfers item to nondominant hand						Use touch cues to teach transfer
e) Tactually searches for bin						Prompt at elbow to search; bring bins close
f) Finds correct bin						Tactual model; show like items in bin
g) Puts item in correct bin						Tap item loose from hand; praise by rubbing back
h) Repeats skills a-g						

** Todd has no formal language, vision, or hearing*

*** This skill objective applies to several activities in Todd's program.*

KEY

+ = independent (no cues)

P = prompting (verbal, slight physical)

— = not independent (considerable manipulation)

Step 4: Decide Where and When to Teach

Since students with dual sensory and multiple impairments have difficulty transferring skills from the learned environment to the natural environment (where the skill is actually needed), every effort must be made to teach skills where they are needed. The ecological component of the functional assessment makes determining where to teach a skill particularly easy. Teaching occurs where the assessment occurred—in the natural environment—whether grocery store, third grade classroom, public swimming pool, school cafeteria, library, or computer lab. Location(s) should be stated in the IEP objective.

In addition, team members should determine whether skills targeted for instruction are required (and thus may be practiced) during other portions of the student's day. For example, while attending to instructions may be a skill targeted for a library activity, it is also required during other activities in the student's day. Thus, the team should identify times during the regular education curriculum when this skill can be practiced in a meaningful way. Other basic skills that can be taught across a number of environments include grasping and releasing objects for a defined purpose, greeting people, making choices, increasing physical strength, and traveling from one place to another.

Intervention should occur when the skill needs to be demonstrated and not during arbitrary practice times established by the teacher. In other words, if a student needs to learn to undress for swimming during physical education, instruction would occur during physical education. It would not occur in the classroom at a specified time (e.g., 10:00-10:15) just for practice. Such out-of-context intervention would be quite inappropriate.

Step 5: Analyze Effectiveness of Intervention

The next critical step in the functional-ecological assessment process is to determine whether the intervention is effective. To do this, the intervention must be systematically observed and recorded. Without this systematic collection of data, the team will be unable to determine if the intervention is effective.

Although some team members may be initially overwhelmed at the idea of "data collection," the task is relatively simple if the IEP is composed of a few (e.g., 6-8) comprehensive, specific objectives (versus several out-of-context, skill-based objectives). The key, then, is to make sure the IEP objectives contain specific, easily measurable criterion. For example, with the objective, "Shannon will follow a pictorial recipe to prepare at least 1 simple snack for 5 home economic periods," a person merely counts the number of times Shannon successfully prepares a simple snack.

Data must be collected and analyzed on a regular basis to determine teacher effectiveness and student progress. Lack of progress should be viewed as inappropriate and ineffective teaching, reinforcing, and/or adaptation strategies, not a student limitation (Browder, 1987). To determine student progress, data probes (e.g., counting the number of times the student performs a skill) should be conducted at least weekly. Weekly probes require a minimum amount of staff

time, yet provide a fairly accurate record of student progress over the school year. Lack of student progress must be noted during these probes, and a team meeting held to determine alternative approaches to teaching or adapting for the necessary skill(s). Thus, regular team meetings should be an ongoing part of the assessment process, constantly monitoring program effectiveness and determining new directions for the student.

Interviews with parents also must be kept up to date. Families change and so do their aspirations for their children. Parents of young children may place a strong emphasis on learning academic skills and developing effective communication skills. As children age, however, parents may begin to express concern over vocational aspirations, the sexual needs of their children, and future living arrangements. Since the assessment process stems from an initial interview with family members, ongoing interactions with the family are necessary to ensure that the needs of the family and the individual are being met. Such interviews should be conducted at <u>least</u> yearly, prior to the development of the student's IEP.

Notes to Remember

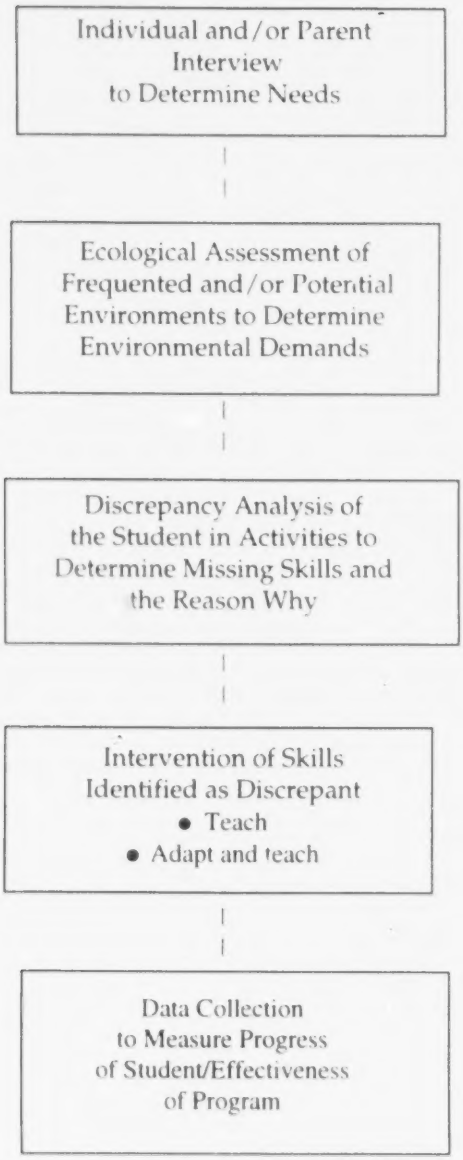
- Assessment requires that team members work together in a collaborative manner.
- Let the individual and family guide the assessment process.
- Document natural cues that prompt behavior.
- Analyzing why a skill is deficient will lead to an effective intervention
- Assessment is ongoing. Keep going it!
- Good IEP objectives:
  - Target critical skills within a meaningful activity,
  - State necessary adaptions, and
  - Describe a practical way to measure progress.
- Assess and teach where and when the skill is needed.
- When the skill can't be taught, ADAPT!
- Assessment helps the team decide when to teach and when to adapt.
- Data is needed to determine progress.

Summary

An attempt has been made to provide guidelines related to the assessment of children and youth labeled deaf-blind and intellectually impaired. A functional-ecological assessment procedure has been presented as the recommended approach to use with this population. (For an overview of this process, see Figure 6 on the next page.) The benefits of this model over standardized assessment procedures have been articulated, with the primary benefit being the direct relation between assessment and intervention. Assessment and intervention do not need to be two distinct processes, but can and must be interrelated in an effort to determine student needs and provide a means of meeting those needs in the most efficient and practical manner. Assessment is a dynamic process, not a static one. Students change. Their abilities change and their needs change. Their environments change and the demands of those environments change. Helping students meet these changing demands requires a flexible and practical approach to both assessment and intervention. The approach described in the previous pages holds considerable merit for meeting this need.

Figure 6

Flow chart of Assessment Process


Individual and/or Parent Interview to Determine Needs
Ecological Assessment of Frequented and/or Potential Environments to Determine Environmental Demands
Discrepancy Analysis of the Student in Activities to Determine Missing Skills and the Reason Why
Intervention of Skills Identified as Discrepant
• Teach
• Adapt and teach
Data Collection to Measure Progress of Student/Effectiveness of Program

References

Biklen, D. (1985). Achieving the complete school. New York: Teachers College Press.

Beukelman, D., & Mirenda, P. (1988). Communication options for persons who cannot speak: Assessment and evaluation. In C.A. Coston (Ed.), Proceedings of the national planners conference on assistive device service delivery. (pp. 151-165). Washington, DC: The Association for the Advancement of Rehabilitation Technology.

Browder, D. (1987). Assessment of individuals with severe handicaps: An applied behavior approach to life skills assessment. Baltimore: Paul H. Brookes.

Brown, L., Shiraga, B., Zanella, K., & Rogan, P. (1984). The discrepancy analysis technique in programs for students with severe handicaps. Madison: University of Wisconsin & Madison Metropolitan School District.

Coggins, T., & Carpenter, R. (1981). The communicative intentions inventory: A system for observing and coding children's early intentional communication. Applied Psycholinguistics, 2, 235-251.

Downing, J. (1989). Identifying and enhancing the communicative behaviors of students with severe disabilities: The role of the school psychologist. School Psychology Review, 18, 475-486.

Downing, J. (1993). Communication intervention for individuals with dual sensory and intellectual impairments. Clinics in Communication Disorders, 3 (2), 31-42.

Downing, J. & Bailey, B. (1990). Sharing the responsibility: Using a transdisciplinary team approach to enhance the learning of students with severe disabilities. Journal of Educational and Psychological Consultation, 1, 259-278.

Ford, A., Schnorr, R., Meyer, L., Davern, L., Black, J. & Dempsey, P. (1989). The Syracuse community-referenced guide for students with moderate and severe disabilities. Baltimore: Paul H. Brookes.

Giangreco, M. (1986). Delivery of therapeutic services in special education programs for learners with severe handicaps. Physical and Occupational Therapy in Pediatrics, 6, 5-15.

Giangreco, M., Cloninger, C. & Iverson, V. (1992). Choosing options and accommodations for children (COACH): A guide to planning inclusive education. Baltimore: Paul H. Brookes.

Giangreco, M.F., Edelman, S.W., Dennis, R.E., & Cloninger, C.J. (1995). Use and impact of COACH with students who are deaf-blind, Journal of the Association for Persons with Severe Handicaps, 20, 121-135.

Harry, B., Grenot-Scheyer, M., Smith-Lewis, M., Park, H.S., Xin, F., & Schwartz, I., (1995). Developing culturally inclusive services for individuals with severe disabilities. Journal of the Association for Persons with Severe Handicaps, 20, 99-109.

Neill, M. & Medina, N. (1989). Standardized testing: Harmful to educational health. Phi Delta Kappan, 70, 688-697.

O'Brien, J. (1987). A guide to lifestyle planning. In T. Bellamy & B. Wilcox (Eds.). The activities catalog: A community programming guide for youth and adults with severe disabilities (pp. 75-189). Baltimore: Paul H. Brookes.

Rowland, C. (1987). Perspectives on communication assessment. In M. Bullis, (Ed.), Communication development in young children with deaf-blindness: Literature review III, (pp. 1-22). Monmouth, OR: Teaching Research.

Rowland, C. & Schweigert, P. (1989). Tangible symbols: Symbolic communication for individuals with multisensory impairments. Augmentative and Alternative Communication, 5, 226-234.

Siegel-Causey, E. & Guess, D. (1989). Enhancing nonsymbolic communication interactions among learners with severe disabilities, Baltimore: Paul H. Brookes.

Snell, M. & Zirpoli, T. (1987). Intervention strategies. In M. Snell (Ed)., Systematic instruction of persons with severe handicaps, (pp. 110-150). Columbus, OH: Charles E. Merrill.

Stillman, R., & Battle, C. (1985). The Callier-Azusa Scale: Scales for the assessment of communicative abilities, Dallas: University of Texas, Callier Center, & South Central Regional Center for Services to Deaf-Blind Children.

Turnbull, A.P., Brotherson, M.J., Bronicki, G.J., Benson, H.A., Houghton, J., Roeder-Gordon, C., & Summers, J.A. (1985). How to plan for my child's adult future: A three-part process to future planning, Lawrence, KS: Future Planning Project, University Affiliated Facility, Bureau of Child Research.

Suggested Readings

Barnett, D., Macmann, G. & Carey, K. (1992). Early intervention and the assessment of developmental skills: Challenges and directions. Topics in Early Childhood Special Education, 12(1), 21-43.

Downing, J. & Perino, D. (1992). Functional versus standardized assessment procedures: Implications for educational programming. Mental Retardation, 30 289-296.

Haney, M. & Cavallero, C.C. (1996) Using ecelogical assessment in daily program planning for children with disabilities in typical preschool settings. Topics in Early Childhood Special Education, 16(1), 66-81.

Leung, B.P. (1996). Quality assessment practices in a diverse society. Teaching Exceptional Children, 28(3), 42-45.

Lim, L.H.F., & Browder, D.M. (1994). Multicultural life skills assessment of individuals with severe disabilities. Journal of the Association for Persons with Severe Handicaps, 19, 130-138.

Linehan, S., Brady, M., & Hwang, C. (1991). Ecological versus developmental assessment: Influences on instructional expectations. Journal of the Association for Persons with Severe Handicaps,16, 146-153.

Mar, H. (1991). Retooling psychology to serve children and adolescents with severe disabilities. School Psychology Review, 20, 510-521.

Morse, M.T. (1992). Augmenting assessment procedures for children with severe multiple handicaps and sensory impairments. Journal of Visual Impairments and Blindness, 86, 73-77.

Neisworth, J. & Bagnato, S. (1992). The case against intelligence testing in early intervention. Topics in Early Childhood Special Education, 12(1), 1-20.

Rainforth, B., York, J. & Macdonald, C. (1992). Collaborative teams for students with severe disabilities: Integrating therapy and educational services. Baltimore: Paul H. Brookes.

Robinson, G. (1983). Assessment and planning with low incidence populations: A functional and chronological age appropriate approach for school psychologists. Des Moines, Iowa: State Department of Public Instruction.

Stillman, R., & Battle, C. (1986). Developmental assessment of communicative abilities in the deaf-blind child. In D. Ellis (Ed.), Sensory handicaps in mentally handicapped people, (pp. 319-335). Austin, TX: Pro-Ed.

Wesson, C.L., & King, R.P. (1996). Portfolio assessment and special education students. Teaching Exceptional Children, 28(2), 44-49.

Suggested Assessment Instruments

Becker, H., Schur, S., Paoletti-Schelp, M. & Hammer, E. (1985). Functional Skills Screening Inventory. Austin, TX: Functional Resources Enterprises, Inc.

Giangreco, M., Cloninger, C. & Iverson, V. (in press). Choosing options and accommodations for children (COACH): A guide to planning inclusive education. Baltimore: Paul H. Brookes.

Meyer, L., Reichle, J., McQuarter, R., Cole, D., Vandercook, T., Evans, I., Neel, R. & Kishi, G. (1985). Assessment of social competence (ASC): A scale of social competence functions. Minneapolis: University of Minnesota.

Rowland, C., Schweigert, P. & Brummett, B. (1991). A.C.E. (Analyzing the communication environment): An inventory of ways to encourage communication in functional activities. Eugene, OR: Oregon Research Institute.

Stremel-Campbell, K., Clark-Guida, J., & Johnson-Dorn, N. (1984). Communication assessment manual. (Contract No. 300-81-0411). Monmouth, OR: Teaching Research.

Tedder, N. & Skiia, A (1992) Communication observation schedule. (Grant #H086G90013). Mississippi State, MS: Mississippi State University Rehabilitation Research and Training Center on Blindness and Low Vision.

Glossary

ecological analysis: a breakdown of an environment that provides social and physical information of the demands of that environment.

functional-ecological assessment: a process of analyzing activities across a variety of environments that are meaningful to a given individual to determine the required steps of the activity, and the skills and deficits the individual may exhibit while performing the activity.

instructional cue: a teacher cue that is added to a given situation when natural cues fail to produce the desired response (may be verbal, gestural, or physical in nature).

natural cue: a stimuli specific to a given environment that serves to naturally prompt behavior for the majority of individuals. Stimuli may be internal or external (e.g., a full bladder cues one to go to the bathroom; rain cues people to get an umbrella).

nondisabled peer inventory: a list of steps performed by a person without a disability to successfully complete an activity. The order of the steps may vary according to individual preference or habit.

Appendix A

Sample Parent/Family Survey Interview Forms

Parent/Family Survey

Sample Questions

1. Are you presently satisfied with your child's educational program?

1a. If not, how would you like to see it changed?

1b. Are you satisfied with the amount and quality of:
- Instruction your child receives in regular education classrooms?
- Instruction in the community?
- Support services your child receives (PT, OT, Vision, Speech)?
- Instruction that addresses self-care, communication, academics, motor skills, and sensory skills?

2. How does your child presently communicate?

2a. Are you satisfied with your child's communication skills?

2b. If not, how would you like to see them improved?
- Instruction that focuses on the use of speech?
- Instruction using alternate and augmentative communication?
- Instruction that targets teaching your child to initiate?
- Instruction that targets teaching your child to respond? (To peers? To teachers? To you as parents?)

3. Does your child have enough friends?
- At home?
- At school?

4. Does your child have sensory impairments that could impact his/her learning? Explain.

5. Does your child have medical problems that could impact his/her learning? Explain.

6. What are your dreams for your child for the next year?
- For the next 3 years?
- For more than 3 years?

Student Preference/Choice Survey

Students Name:_____ Date: _____

Surveyor's Name:_____ Relationship to Student _____

Person(s) interviewed (if applicable)_____

1. How does the student indicate likes and dislikes? (You may check more than one behavior if it applies)

	Likes	Dislikes		Likes	Dislikes
a. Laughs	___	___	l. Points/reaches	___	___
b. Cries	___	___	j. Initiates action	___	___
c. Facial Expression	___	___	k. Vocalizes	___	___
d. Screams	___	___	l. Gestures	___	___
e. Tantrums	___	___	m. Signs	___	___
f. Looks at people	___	___	n. Technology	___	___
g. Looks at people	___	___	Switch(es)		
h. Moves body	___	___	(List type)	_____	

2. How does the student generally indicate preferences or choices when given the choice between two or more activities or foods?

3. What types of choices are comfortable for the student to make?

4. What types of choices are uncomfortable for the student to make?

5. What are the student's three most favored activities? (These can be either instructional or recreational activities.)

6. What are the student's three least favored activities? (These can be either instructional or recreational activities.

7. Does the student have preferences (regardless of need) for:

____ learning specialist	____ vision specialist
____ speech therapy	____ occupational therapy
____ transportation	____ dietary services
____ positioning	____ medical services
____ physical therapy	____ audiology
____ psychological/counseling services	____ other:_____
____ orientation & mobility	

8. What time of day does the student prefer to be active?

9. What time of day does the student prefer to relax?

10. Who does the student prefer to participate with during educational activities? (Staff?)

11. Who does the student prefer to participate with during educational activities? (Other students, friends?)

12 Generally the student prefers: (check the appropriate responses)

a. Temperature: _____hot; _____cold, _____warm.

b. Taste: _____sweet; _____sour: _____spicy; _____bland.

c . Lights: _____bright; _____dark; _____dull; _____natural light; _____artificial light.

d. Positioning: _____side lying; _____prone; _____supine; _____supported sitting; _____supported kneeling; _____sitting; _____standing.

Favorite positions to participate during activities (please list)

Favorite positions for sleeping (please list)

Adaptive devices used to obtain favorite position (please list)

e. Mobility: _____crawling; _____walking; _____walker; _____crutches; _____wheelchair; _____travel chair.

f. Sounds: _____loud; _____soft; _____moderate; _____steady state noise (e.g., fans or vacuum cleaner); _____environmental; _____artificial.

g. Textures (material): _____rough; _____smooth; _____hard; _____soft; _____squishy; _____slimy; _____fuzzy.

h. Textures (food): _____pureed; _____semi-soft; _____bite-sized.

Favorite foods (please list)

i. Drinks: _____thick in consistency; _____thin in consistency; _____carbonated; _____noncarbonated.

Favorite drinks (please list)

j. Environment: _____outdoors; _____indoors; _____wet; _____dry; _____airy.

k. Media: _____colorful; _____black/white; _____large print; _____neutral; _____high contrast; _____low contrast.

Favorite colors (please list)

l. Communication: _____verbalizes (expressive speech); _____vocalizes; _____signs; _____gestures; _____communication board; _____computer; _____head stick; _____technological switch; _____other (please specify).

m. Music: _____hard rock; _____classical; _____jazz; _____pop; _____country; _____folk rock; _____folk music; _____acid rock; _____rhythm & blues; _____ rock & roll; _____new wave; _____blues; _____blue grass; _____ industrial.

Favorite songs (please list)

Favorite instruments (please list)

n. TV: _____family shows; _____police and detective shows; _____medical shows; _____news; _____comedies; _____talk shows; _____computer games; _____game shows; _____movies; _____sitcoms; _____variety shows; _____sports events.

Favorite TV shows (please list)

Favorite computer games (please list)

o. Involvement: _____activities of fast pace;
_____activities of moderate pace;
_____activities of slow pace.

p. Engagement: _____highly repetitive activities;
_____moderately repetitive activities;
_____nonrepetitive activities.

q. Activities in environmental activities: _____ lots of action;
_____ moderate degree of action;
_____ action is limited.

r. Competition _____ in highly competitive situations;
_____ moderately competitive situations
_____ noncompetitive situations.

s. Structure: _____ in highly structured situations
_____ moderately structured situations
_____ loosely structured situations.

t. Familiarity: _____in unfamiliar or new surroundings;
_____in familiar surroundings
_____familiar or unfamiliar surroundings do not matter.

u. Visual stimulation: _____ in highly visually stimulating environments;
_____ in moderately visually stimulating environments;
_____ in low visually stimulating environments.

v. Auditory stimulation: _____ in noisy environments;
_____ in moderately noisy environments;
_____ in quiet environments

w. Participation: _____alone; _____with 1 other person; _____with small group; _____with large group.

x. Activity Level: _____very active; _____moderately active; _____relaxed.

y. Dependency: _____independent: _____ supervised; _____dependent.

z. Peers - Age Groups: _____with age peers; _____with persons older; _____with persons younger.

aa. Peers - sex: _____ members of same sex; _____ members of opposite sex; _____ members of both sexes.

bb. Attention: _____center of attention; _____one of the crowd; _____seen but not heard; _____isolated

cc. Surfaces: _____ high glare; _____non-glare; _____glare does not matter.

dd. Materials;_____high contrast; _____low contrast; _____contrast does not matter.

Adapted from: Turnbull, A.P., Brotherson, M.J., Bronicki,G.J., Houghton,J., Roeder-Gordon, C., & Summers, J.A. (1985). *How to plan for my child's adult future: A three-part process to future planning.* Lawrence: University of Kansas Affiliated Facility, Bureau of Child Research.

Parent Inventory of Current And Future Environments

Student's Name:_____ Date: _____

Person(s) Interviewed:_____ Relationship to Student:_____

Interviewer (if applicable): _____

I. Life Areas

A. Independent Living

1. Where do you want your son or daughter to live within the next five years?

2 Are there any residential options that would be unpleasant to your son or daughter?
Yes_____ No_____ If so, what are they?

3. Are there any residential options or settings that your son or daughter would enjoy?
Yes_____ No_____ If so, what are they?

4. Are there any specific considerations or concerns that you feel your son or daughter needs with regard to future residential options? (This also includes if you plan on your son or daughter remaining in your home.) Yes_____ No_____ If so, what are they?

5. Have you considered any residential options? Yes_____ No_____ if so, what are they?

6. Name the independent living activities in which your son or daughter currently participates. Mark (x) the level of assistance required for participation, and rank (1,2,3) three activities that you feel would increase your son or daughter's level of

independence. You may want to use some of the following activities.

	Independent	Assistance	Does not Participate	Rank
a.				
b.				
c.				
d.				
e.				
f.				
g.				
h.				

Other:

7. Independent Livir.g Activities

1. Indicates toileting needs
2. Toileting
3. Eating or drinking
4. Grooms self (hair care, brushes teeth, applies deodorant, bathing)
5. Selects own clothing
6. Dresses self
7. Indicates if he or she wants to be repositioned or placed in a different location
8. Transfers in and out of wheelchair
9. Folds clothes
10. Puts clothes away
11. Puts clothes in hamper
12. Makes own drink or sandwiches
13. Prepares lunch for work or school
14. Gets own snack
15. Sets and clears table
16. Puts groceries away
17. Selects items for meals
18. Dusts furniture
19. Cleans room
20. Mops or sweeps floor
21. Makes bed
22. Empties trash
23. Waters plants
24. Mends clothes
25. Irons clothes
26. Washes or dries clothes.

B. Work

1. What job would you like your son or daughter to have?

2. Where would you like him or her to work?

3. Are there any vocational training options that you would like him or her to attend? Yes___ No___ If so, what are they?

4. Are there any jobs (including vocational training programs) that your son or daughter would enjoy?
Yes___ No___ If so, what are they?

5. Are there any jobs (including vocational training programs) that would be particularly unpleasant to your son or daughter? Yes___ No___ If so, what are they?

6. Are there any specific considerations or concerns that you feel your son or daughter needs with regard to jobs or vocational training options? Yes___ No ___ If so, what are they?

7. Have you considered any jobs or vocational training options? Yes___ No___ If so, what are they?

8. Name the work activities in which your son or daughter currently participates. Mark (X) the level of assistance required for participation, and rank (1, 2, 3) three activities that you feel would increase your son or daughter's level of independence. You may want to use some of the following activities.

	Inde-pendent	Assist-ance	Does Not Participate	Rank
a. _____	_____	_____	_____	_____
b._____	_____	_____	_____	_____

c._____ _____ _____ _____ _____

d._____ _____ _____ _____ _____

e _____ _____ _____ _____ _____

f._____ _____ _____ _____ _____

g _____ _____ _____ _____ _____

h._____ _____ _____ _____ _____

Other:

Work Activities

1. Sorts
2. Matches
3. Assembles
4. Packages
5. Folds
6. Observes break time
7. Arrives and leaves work on time
8. Obtains work materials
9. Puts work materials away
10. Leaves work area neat
11. Uses time clock
12. Attends to task with minimal -dist -actions
13. Performs farm chores
14. Obtains work materials
15. Follows verbal instructions
16. Follows job picture sequence
17. Interacts with co-workers appropriately
18. Receives corrections from supervisor without disruption
19. Self-corrects errors

C. Community Life

1. In which community activities would you like your son or daughter to participate?

2. Are there any community activities that your son or daughter particularly enjoys? Yes_____ No_____ If so, what are they?

3. Are there any community activities that would be particularly unpleasant to your son or daughter? Yes _____ No_____If so, what are they?

4. Are there any particular concerns or considerations that you feel your son or daughter needs with regard to community activities? Yes_____ No____ If so, what are they?

5. Name community activities in which your family and your son or daughter currently participates, mark (X) the level of assistance required for participation, and rank (1, 2, 3) three activities that you feel would increase your son/daughter's level of independence. You may want to use some of the following activities.

	Activity	Name of Facility	Inde-pendent	Assist-ance	Does Not Participate	Rank
a.						
b.						
c.						
d.						
e.						
f.						
g.						
h.						

Other:

Community Life Activities

1. Selects clothing items at store
2. Makes purchases
3. Uses public phone
4. Makes selections at grocery store
5. Makes grocery list
6. Selects account for money to be deposited (checking/savings)
7. Writes checks
8. Uses money card
9. Places letters in mailbox
10. Mails packages
11. Attends church
12. Uses public transportation
13. Uses public restrooms
14. Cooperates with barber or hairdresser
15. Cooperates with doctor or dentist
16. Uses coin operated washers or dryers
17. Makes selection at library
18. Looks, at pictures or books at library
19. Pays for public transportation
20. Makes selection from pop machines

D. Recreation/Leisure

1. How would you like your son or daughter to spend his or her free time? (This includes both indoor and outdoor activities.)

2. Are there any particular activities that your son or daughter enjoys? Yes____ No___ If so, what are they?

3. Are there any particular activities that are unpleasant to your son or daughter? Yes___ No___ If so, what are they?

4. Are there any specific concerns or considerations that you feel your son or daughter needs with regard to recreation/leisure options? Yes___ No___ If so, what are they?

5. Name recreational/leisure activities in which your family and your son/daughter currently participates, mark (X) the level of assistance required for participation, and rank (1, 2, 3) three activities that you feel would increase your son or daughter's level of independence. (This includes both indoor and outdoor activities.) You may want to use some of the following activities.

Activity	Indoor/ Outdoor	Name of Facility	Inde- pendent	Assist- ance	Does Not Participate	Rank
a.						
b.						
c.						
d.						
e.						
f.						
g.						
h.						

Other:

Recreation/Leisure Activities

1. Swimming
2. Bowling
3. Movies, theater, concerts
4. Uses equipment at parks
5. Picnics
6. Walks
7. Track (running, jogging, or softball throw)
8. Rollerskates (one or two skates)
9. Dances
10. Parties
11. Car rides
12. Participates in family vacations
13. Camping
14. Fishing
15. Boating
16. Watches sporting events
17. Participates in sporting events
18. Rides horses
19. Woodworking
20. Painting or drawing
21. Selects music
22. Listens to music
23. Crafts
24. Collects items or objects
25. Computer games
26. TV
27. Video games at arcades
28. Selects items at restaurants
29. Plays miniature golf
30. Water slides
31. Zoo
32. Sings in choir
33. Visits are galleries or museums
34. Plays musical instrument
35. Plays table games
36. Photography
37. Attends exercise class (e.g., jazzercise or aerobics)
38. Visits friends and neighbors

E. Regular Education

1. In what regular education activities would you like your son or daughter to participate? (This includes extracurricular activities.)

2. Are there any particular regular education activities your son or daughter enjoys? Yes_____ No_____ If so, what are they?

3. Are there any particular regular education activities that are unpleasant to your son or daughter? Yes_____ No_____ If so, what are they?

4. Are there any specific concerns or considerations that you feel your son/daughter needs with regard to regular education activities? Yes_____ No _____ If so, what are they?

5. Name the regular education activities in which your son or daughter currently participates, mark (X) the level of assistance required for participation. and rank (1,2,3) the activities that you feel would increase your son's or daughter's level on independence. You may want to use some of the following activities.

	Activity	Grade Level	Inde-pendent	Assist-ance	Does Not Participate	Rank
a.						
b.						
c.						
d.						
e.						
f.						
g.						
h.						

Other:

Regular Education

1. Reading
2. Math
3. Science
4. Social Studies
5. Handwriting
6. Art
7. Music
8. Library
9. PE
10. Homeroom
11. Home economics
12. Foreign language
13. Theater
14. Woodshop
15. Automotive technology
16. Orchestra
17. Choir
18. Typing
19. Shorthand
20. Accounting
21. Journalism
22. Metal shop
23. Agricultural science
24. Speech (Forensics)
25. Debate
26. Psychology
27. Sociology
28. Sports (please list)
29. Clubs (please list)
30. Cheerleading
31. Drill Team
32. Flag Team
33. Student Government
34. Scouts (please list)
35. Yearbook
36. Newspaper
37. Mascot

Adapted from: Turnbull, A. P., Brotherson, M. J., Bronicki, G. J., Houghton, J., Roeder-Gordon, C., &Summers, J. A. (1 985). *How to plan for my child's adult future: A three-part process to future planning.* Lawrence: University of Kansas Affiliated Facility, Bureau of Child Research.

Appendix B

Functional-Ecological Assessment Forms & Samples

Compilation of Assessment Findings

Student:_____ **Date:**_____

Age:_____ **Assessors(s)**_____

_____

Activities and Environments Assessed*

_____

_____

_____

_____

* See Attached Discrepancy Analysis

General Findings

Communication:

Motoric (movement in spece & manipulation of objects):

Sensory (visual, hearing, tactile):

Cognitive (decision making, problem solving, attention to task, associations, etc):

Academics (reading, writing, math):

Personal care:

Social:

Functional-Ecological Assessment Form

Domain:_ **Handicapping Condition:**_____

Location:_____

Environment:_____

Subenvironment:_____

Activity: _____

Key
+ = Independent
P = Partial Assistance (Cues Provided)
- = Not Independent

Non Handicapped Person Inventory	Natural Cues	Student Performance	Discrepancy Analysis	Adaptation/ Cues to Teach

Functional-ecological Assessment Form

Domain: School
Location: Henry Elementary
Environment: School Hall
Subenvironment: Office
Activity: Take attendance to office

Handicapping Condition: Visual impairment, hearing loss, severe retardation, nonverbal, Short attention span

Key
+ = Independent
P = Partial Assistance (Cues Provided)
-- = Not Independent

Non Handicapped Person Inventory	Natural Cues	Student Performance	Discrepancy Analysis	Adaptation/ Cues to Teach
1. Responds to teacher when chosen to take attendance	Teacher Direction	--	No response; doesn't understand task expectations	Teacher waves envelope, aide prompts from behind
2. Gets office pass from wall	Knows the routine	--	Short term memory poor; sees no need for pass	Teacher points to large bright yellow pass on wall
3. Walks down hall to office	Knowledge of route	--	Doesn't know route	Peer buddy goes with her
4. Greets secretary	Presence of secretary	--	May not see secretary, poor social skills	Peer models a wave & prompts her to touch secretary
5. Hands envelope to secretary	Outstretched hand	+		
6. Walks back to class	Knowledge of routine & route	--	Does not know route	Peer buddy goes with her
7. Returns office pass to wall	Office pass in hand, knowledge of routine	--	Does not know the routine	Peer cues/taps wall to direct attention
8. Sits down at desk	Empty desk, class rules	--	Wanders around room, doesn't understand class rules	Peer point to her seat; aide redirects

Appendix C

Instructional Task Analysis Form

Instructional Task Analysis

Student:_____ Domain:_____

Activity:_____

Objective:_____

_____

Step from nondisabled peer inventory: _____

Skill Sequence	Dates					Teach or Adapt

KEY
+ = independent (no cues)
P = prompting (verbal, slight physical)
— = not independent (considerable manipulation)